

CELEBRATING
COMMERCIALISATION
YEAR 2014

iiindex 2014

AN INTERNATIONAL EXPOSITION ON RESEARCH AND INNOVATION

invention
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exposition 2014

INNOVATEUR
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2014

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UNIVERSITI TEKNOLOGI MARA
MALAYSIA

*Bridging
the valley of death :
advancing the
commercialisation
of research*

RESEARCH BOOK

iiindex2014

AN INTERNATIONAL EXPOSITION ON RESEARCH AND INNOVATION

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FOREWORD

The Honourable Minister of Science, Technology and Innovation (MOSTI) has launched 2014 as Malaysia Commercialisation Year 2014 (MCY2014) with the theme Science Technology and Innovation (STI) for Wealth Creation. In line with this theme, Invention, Innovation, Design & Exposition 2014 (iidex2014) is an annual exposition organized by UiTM and is the ultimate platform to highlight and commercialise new inventions and innovations. Researchers and inventors will exhibit their products which cater to the needs and wants of the community and the country.

The iidex2014 creates a new dimension by fusing two competitive concepts, a competition among innovative products and a competition to invite Innovateur Wannabes to perform live pitching of their products to the audience. The iidex2014 focuses on comprehensive commercialization and creating opportunities for entrepreneurs to carry out R&D as well as to provide avenue to commercialise their products. Through expositions such as iidex2014, MOSTI hopes to inculcate the culture of commercialisation of new technology designed and created by Malaysians.

I wish to congratulate all the participants of the iidex2014 and this is the opportunity for all researchers to show their ideas and exhibits their products and creativity. Apart from showcasing their products, innovators will have the opportunity to provide a window to the industry for business matching during the exposition.

Tan Sri Dato' Sri Sallehuddin Mohamed
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AUTOMATIC RABBIT FEEDING SYSTEM USING SCADA

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The aims of this study is to develop a suitable system which is supervisory control and data acquisition (SCADA) to control rabbit feeding system using TBOX. The rabbit feeding system were controlled using automatic functions which were developed, manual controller or Short Message Service (SMS). The system also can be monitored in Human Machine Interface (HMI) developed. Besides, the rabbit feeding time will be logged and stored in the system. The SCADA system is the most suitable system implementing to the Rabbit Feeding system in the large industry. Most of the SCADA system is applied in oil and gas industry that give big profit to the company. By implementing the system in the rabbit farming industry give that industry more competitive. The system combines the supervisory control and data acquisition in a single unit. That specification makes the system suitable as Rabbit Feeding System. The system is automatically controlled by SCADA system and provides the intelligence for the entire system. The project was developed using TwinSoft software for control of the rabbit feeding system. The motor is used to feed the rabbit. The motor is controlled using the timer in the system.

ON-BOARD REAL TIME VISION BASED SENSOR IMPLEMENTATION ON UAV FOR FEATURES DETECTION TECHNIQUE OF LOW ALTITUDE MAPPING

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It is a difficult task for a remotely operated aerial vehicle to manoeuvre and navigate effectively over an area to perform some tasks. Putting some form of intelligence into the control system of the aerial vehicle and combining it with a good detection system will be helpful to automate the manoeuvre and navigation. The idea is to implement simple algorithm to process digitized analog images which are captured using simple analog video cameras. This could be used to detect features over a simulated physical surrounding of a small portion of a paddy field. The processed data is used to assist in performing effective navigation for the unmanned aerial vehicle over the paddy field. Simplified hardware and algorithm are essential to produce a minimum load required by the unmanned aerial vehicle.